PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Christopher C. Fraser, et al.

Application No.:

09/759,130

January 12, 2001

Group No.:

Filed: For:

Examiner:

NOVEL GENES ENCODING PROTEINS HAVING PROGNOSTIC. DIAGNOSTIC, PREVENTIVE, THERAPEUTIC, AND OTHER USES

U.S. Patent and Trademark Office **Box Sequence** P.O. Box 2327 Arlington, VA 22202

SUBMISSION OF "SEQUENCE LISTING," COMPUTER READABLE COPY, AND/OR AMENDMENT PERTAINING THERETO FOR BIOTECHNOLOGY INVENTION CONTAINING NUCLEOTIDE AND/OR AMINO ACID SEQUENCE

- 1. [X] This replies to the Notice to Comply with Requirements for Patent Applications Containing Nucleotide Sequence and/or Amino Acid Sequence Disclosures dated June 26, 2002.
 - [X] A copy of the Notice to Comply with Requirements for Patent Applications Containing Nucleotide Sequence and/or Amino Acid Sequence Disclosures including the Raw Sequence Listing Error Report is enclosed.

CERTIFICATION UNDER 37 C.F.R. SECTIONS 1.8(a) and 1.10*

I hereby certify that, on the date shown below, this correspondence is being:

 \square deposited with the United States Postal Service in an envelope addressed to the Assistant Commissioner of Patents, Washington, D.C. 20231.

37 C.F.R. SECTION 1.8(a)

37 C.F.R. SECTION 1.10*

 \square with sufficient postage as first class mail. as "Express Mail Post Office to Address" Mailing Label No.

TRANSMISSION

transmitted by facsimile to the Patent and Trademark Office.

Signatur

Date: September 13, 2002

(type or print name of person certifying)

*WARNING:Each paper or fee filed by "Express Mail" must have the number of the "Express Mail" mailing label placed thereon prior to mailing, 37 C.F.R. section 1.10(b). "Since the filing of correspondence under section 1.10 without the Express Mail mailing label thereon is an oversight that can be avoided by the exercise of reasonable care, requests for waiver of this requirement will not be granted on petition." Notice of Oct. 24, 1996, 60 Fed. Reg. 56,439, at 56,442.

00000016 501668 110.00 CH 19/18/2002 KZEWDIE

Practitioner's Docket No. MPI00-535OMNIM

IDENTIFICATION OF PERSON MAKING STATEMENT

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ITEMS BEING SUBMITTED

3.	Submitted	nerewith	ıs/are:	

- A. (X) "Sequence Listing(s)" for the nucleotide and/or amino acid sequence(s) in this application. Each "Sequence Listing" is assigned a separate identifier as required in 37 C.F.R. Section 1.821(c) and 37 C.F.R. Sections 1.822 and 1.823.
- B. () An amendment to the description and/or claims, wherein reference is made to the sequence by use of the assigned identifier, as required in 37 C.F.R. Section 1.821(d).
- C. (X) A copy of each "Sequence Listing" submitted for this application in computer readable form, in accordance with the requirements of 37 C.F.R. Sections 1.821(e) and 1.824.
- D. (X) Executed Revocation of Prior Powers of Attorney and Appointment of New Power of Attorney.
- E. () Please transfer to this application, in accordance with 37 C.F.R. Section 1.821(e), the computereadable copy(ies) from applicant's other application identified as follows:

In re application of: , et al		
Application No.:	Group No.:	
Filed:	Examiner:	
For:	•	
The Computer readable form(s) Identifier(s)" of the application as follows:) of applicant's other application ows:	corresponds to the "Sequence
Computer Readable Form		"Sequence Identifier"
(other application)		(this application)

F. [] A statement that the content of each "Sequence Listing" submitted and each computer

Practitioner's Docket No. MPI00-535OMNIM

readable copy are the same, as required in 37 C.F.R. Section 1.821(g).

- () Because the statement is not made by a person registered to practice before the Office, the Statement is verified as required in 37 C.F.R. Section 1.821(b).
- G. [X] Because this submission is made in fulfilling the requirement under 37 C.F.R. Section 1.821(g), a statement that the submission includes no new matter.
 - [] Because the statement is not made by a person registered to practice before the Office, the statement is verified, as required in 37 C.F.R. Section 1.821(g).

STATEMENT THAT "SEQUENCE LISTING" AND COMPUTER READABLE COPY ARE THE SAME AND/OR THAT PAPERS SUBMITTED INCLUDES NO NEW MATTER

- 4. I hereby state:
 - A. [X] Each computer readable form submitted in this application, including those forms requested to be transferred from applicant's other application, is the same as the "Sequence Listing" to which it is indicated to relate.
 - B. [X] All papers accompanying this submission, or for which a request for transfer from applicants' other application, introduce no new matter.

EXTENSION OF TERM

- 5. The proceedings herein are for a patent application and the provisions of 37 C.F.R. Section 1.136 apply.
 - (a) [X] Applicant petitions for an extension of time under 37 C.F.R. Section 1.136 (fees: 37 C.F.R. Section 1.17(a)(1)-(4)) for the total number of months checked below:

Extension (months)	Fee for other than small entity	Fee for small entity
(X) one month	\$ 110.00	\$ 55.00
() two months	\$ 390.00	\$ 195.00
() three months	\$ 890.00	\$ 445.00
() four months	\$1,390.00	\$ 695.00
		(D2-C4)

(Page 3 of 4)

Practitioner's Docket No. MPI00-535OMNIM

		Fee	\$110.00
If an additional extension of time is required, please	consider this a petition theref	or.	
\$0.00 is deducted from a now requested.	eady been secured, and the fe he total fee due for the total i		
	Extension fee due with	this requ	est _\$110.00
	OR		
(b) [] Applicant believes that no extension of being made to provide for the possibility for a petition and fee for extension of times.	ty that applicant has inadver		
FEE P	AYMENT		
6. [] Attached is a check in the sum of \$	·		
[X] Charge Account No. <u>501668</u> the sum of A duplicate of this transmittal is attached.	\$110.00		
FEE DE	FICIENCY		
8. (X) If any additional extension and/or fee is requ	nired, charge Account No. 50)1668	<u></u>
By Jea Re 75 Ca Te	ILLENNIUM PHARMACE n M. Silveri gistration No. 39,030 Sidney Street mbridge, MA 02139 ephone - 617-679-7336 esimile - 617-551-8820	UTICAI <u>VC</u> V	LS, INC.





PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENTS UNITED STATES PATENT AND TRADEMARK OFFICE WASHINGTON, D.C. 20231

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APPLICATION NUMBER

FILING/RECEIPT DATE

FIRST NAMED APPLICANT

ATTORNEY DOCKET NUMBER

09/759,130

01/12/2001

Christopher C. Fraser

10147-66 (MPI2000-5350MNI

CONFIRMATION NO. 2853

FORMALITIES LETTER

OC000000008352535

000570 AKIN, GUMP, STRAUSS, HAUER & FELD, L.L.P. ONE COMMERCE SQUARE 2005 MARKET STREET, SUITE 2200 PHILADELPHIA, PA 19103

Date Mailed: 06/26/2002

NOTICE TO COMPLY WITH REQUIREMENTS FOR PATENT APPLICATIONS CONTAINING NUCLEOTIDE SEQUENCE AND/OR AMINO ACID SEQUENCE **DISCLOSURES**

Applicant is given TWO MONTHS FROM THE DATE OF THIS NOTICE within which to file the items indicated below to avoid abandonment. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

· A copy of the "Sequence Listing" in computer readable form has been submitted. However, the content of the computer readable form does not comply with the requirements of 37 C.F.R. 1.822 and/or 1.823, as indicated on the attached copy of the marked -up "Raw Sequence Listing." Applicant must provide a substitute computer readable form (CRF) copy of the "Sequence Listing" and a statement that the content of the sequence listing information recorded in computer readable form is identical to the written (on paper or compact disc) sequence listing and, where applicable, includes no new matter, as required by 37 CFR 1.821(e), 1.821(f), 1.821(g), 1.825(b), or 1.825(d).

For questions regarding compliance to these requirements, please contact:

- For Rules Interpretation, call (703) 308-4216
- To Purchase Patentin Software, call (703) 306-2600
- For Patentin Software Program Help, call (703) 306-4119 or e-mail at patin21help@uspto.gov or patin3help@uspto.gov

A copy of this notice MUST be returned with the reply.

Customer Servie

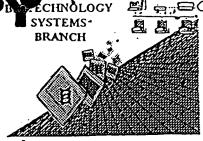
Initial Patent Examination Division (703) 308-1202

PART 2 - COPY TO BE RETURNED WITH RESPONSE

SEP : 6 2002 RA

MM COPINECHNOLOGY SYSTEMS-

RAW SEQUENCE LISTING ERROR REPORT



The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: O9/759, 130ASource: O1PEDate Processed by STIC: O9/759, 130A

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,

2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216. PATENTIN 2.1 c-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax) PATENTIN 3.0 c-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE <u>CHECKER VERSION 3.0 PROGRAM</u>, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

Checker Version 3.0

The Checker Version 3.0 application is a state-of the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 – 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.

Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO). Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker Version 3.0 can be down loaded from the USPTO website at the following address: http://www.uspto.gov/web/offices/pac/checker



OIPE

RAW SEQUENCE LISTING DATE: 10/04/2001 PATENT APPLICATION: US/09/759,130A TIME: 13:00:32

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Does Not Comply
Corrected Diskette Needed

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         SHARP, John D
       . BARNES, Thomas S
         KIRST, Susan J
         MACKAY, Charles R
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         MYERS, Paul S
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         LEIBY, Kevin R
         WRIGHTON, Nicholas
11
         GOODEARL, Andrew
12
         HOLTZMAN, Douglas A
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18 <130> FILE REFERENCE: 210147.0066/66US
20 <140> CURRENT APPLICATION NUMBER: US/09/759,130A-
21 <141> CURRENT FILING DATE: 2001-01-19
23 <150> PRIOR APPLICATION NUMBER: US 09/479,249 ✓
24 <151> PRIOR FILING DATE: 2000-01-07
26 <150> PRIOR APPLICATION NUMBER: US 09/559,497
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321	Ala	Ile	Val	Ala	Glv	Asn	Glu	Glu	Asn	Ile	Phe	Ile	Ile	Asp	Pro	Arg
322		530				•	535					540		-		-
	Sor		λen	Tle	Hie	Thr		Va 1	Ser	Met	Asn		Va 1	Pro	Tvr	Thr
	545	Cys	nsp	110	5	550					555	001			-1-	560
			61	T	C ~ ~	,Val	т1.	Tlo	cln	N c n		C111	Non	Dro	Cln	
		тър				,va1	116	ire	GIII			GIY	ASII	FIO	575	neu
328					565	_	_	.		570		~1	m			G
	His	Thr	Lys		Leu	Leu	Lys	Cys		шe	Pne	GIU	TYT		GIU	ser
331				580					585			_		590		
333	Val	Thr	Car	mh w	3 7 -		m L									
				1111	Ala	met	THE		vaı	Ser	GIn	Ala	ser	Leu	Asp	Val
334			595	1111	Ala	мес	THE	600	vaı	Ser	GIn	;	605	Leu	Asp	Val
			595			Leu		600				\$	605			
	Leu		595					600				\$	605			
336 337	Leu	Val 610	595 Ile	Met	Val	Leu	Phe 615	600 Ala	Thr	Arg	Cys	; Asn 620	605 Arg	Glu	Lys	Lys
336 337 339	Leu Asp	Val 610	595 Ile	Met	Val	Leu Asn	Phe 615	600 Ala	Thr	Arg	Cys Glu	; Asn 620	605 Arg	Glu	Lys	Lys
336 337 339 340	Leu Asp 625	Val 610 Thr	595 Ile Arg	Met Ser	Val Tyr	Leu Asn 630	Phe 615 Cys	600 Ala Arg	Thr Val	Arg Ala	Cys Glu 635	Asn 620 Ser	605 Arg Thr	Glu Tyr	Lys Gln	Lys His 640
336 337 339 340 342	Leu Asp 625	Val 610 Thr	595 Ile Arg	Met Ser	Val Tyr Pro	Leu Asn	Phe 615 Cys	600 Ala Arg	Thr Val	Arg Ala His	Cys Glu 635	Asn 620 Ser	605 Arg Thr	Glu Tyr	Lys Gln Thr	Lys His 640
336 337 339 340 342 343	Leu Asp 625 His	Val 610 Thr	595 Ile Arg Lys	Met Ser Arg	Val Tyr Pro 645	Leu Asn 630 Ser	Phe 615 Cys Arg	600 Ala Arg Gln	Thr Val Ile	Arg Ala His 650	Cys Glu 635 Lys	Asn 620 Ser Gly	605 Arg Thr Asp	Glu Tyr Ile	Lys Gln Thr 655	Lys His 640 Leu
336 337 339 340 342 343 345	Leu Asp 625 His	Val 610 Thr	595 Ile Arg Lys	Met Ser Arg	Val Tyr Pro 645	Leu Asn 630	Phe 615 Cys Arg	600 Ala Arg Gln	Thr Val Ile Pro	Arg Ala His 650	Cys Glu 635 Lys	Asn 620 Ser Gly	605 Arg Thr Asp	Glu Tyr Ile His	Lys Gln Thr 655	Lys His 640 Leu
336 337 339 340 342 343 345 346	Leu Asp 625 His Val	Val 610 Thr Pro	595 Ile Arg Lys Thr	Met Ser Arg Ile 660	Val Tyr Pro 645 Asn	Leu Asn 630 Ser Gly	Phe 615 Cys Arg	600 Ala Arg Gln Leu	Thr Val Ile Pro 665	Arg Ala His 650 Ile	Cys Glu 635 Lys Arg	Asn 620 Ser Gly Ser	605 Arg Thr Asp	Glu Tyr Ile His 670	Lys Gln Thr 655 Arg	Lys His 640 Leu Ser
336 337 339 340 342 343 345 346 348	Leu Asp 625 His Val	Val 610 Thr Pro	595 Ile Arg Lys Thr	Met Ser Arg Ile 660	Val Tyr Pro 645 Asn	Leu Asn 630 Ser	Phe 615 Cys Arg	600 Ala Arg Gln Leu Leu	Thr Val Ile Pro 665	Arg Ala His 650 Ile	Cys Glu 635 Lys Arg	Asn 620 Ser Gly Ser	605 Arg Thr Asp His	Glu Tyr Ile His 670	Lys Gln Thr 655 Arg	Lys His 640 Leu Ser
336 337 339 340 342 343 345 346 348 349	Leu Asp 625 His Val	Val 610 Thr Pro Pro	595 Ile Arg Lys Thr Ser 675	Met Ser Arg Ile 660 Ser	Val Tyr Pro 645 Asn	Leu Asn 630 Ser Gly Pro	Phe 615 Cys Arg Thr	600 Ala Arg Gln Leu Leu 680	Thr Val Ile Pro 665 Glu	Arg Ala His 650 Ile Arg	Cys Glu 635 Lys Arg Gly	Asn 620 Ser Gly Ser	605 Arg Thr Asp His Met 685	Glu Tyr Ile His 670 Gly	Lys Gln Thr 655 Arg	Lys His 640 Leu Ser
336 337 339 340 342 343 345 346 348 349	Leu Asp 625 His Val	Val 610 Thr Pro Pro	595 Ile Arg Lys Thr Ser 675 Asn	Met Ser Arg Ile 660 Ser	Val Tyr Pro 645 Asn Ser Val	Leu Asn 630 Ser Gly Pro	Phe 615 Cys Arg Thr Thr	600 Ala Arg Gln Leu Leu 680	Thr Val Ile Pro 665 Glu	Arg Ala His 650 Ile Arg	Cys Glu 635 Lys Arg Gly	Asn 620 Ser Gly Ser	605 Arg Thr Asp His Met 685	Glu Tyr Ile His 670 Gly	Lys Gln Thr 655 Arg	Lys His 640 Leu Ser
336 337 339 340 342 343 345 346 348 349 351 352	Leu Asp 625 His Val Ser	Val 610 Thr Pro Pro Pro	595 Ile Arg Lys Thr Ser 675 Asn	Met Ser Arg Ile 660 Ser His	Val Tyr Pro 645 Asn Ser Val	Leu Asn 630 Ser Gly Pro	Phe 615 Cys Arg Thr Thr Glu 695	600 Ala Arg Gln Leu 680 Asn	Thr Val Ile Pro 665 Glu Phe	Arg Ala His 650 Ile Arg Ser	Cys Glu 635 Lys Arg Gly Leu	Asn 620 Ser Gly Ser Gln Glu 700	Thr Asp His Met 685 Leu	Glu Tyr Ile His 670 Gly	Lys Gln Thr 655 Arg Ser	Lys His 640 Leu Ser Arg
336 337 339 340 342 343 345 346 348 349 351 352	Leu Asp 625 His Val Ser	Val 610 Thr Pro Pro Pro	595 Ile Arg Lys Thr Ser 675 Asn	Met Ser Arg Ile 660 Ser His	Val Tyr Pro 645 Asn Ser Val Glu	Leu Asn 630 Ser Gly Pro Pro	Phe 615 Cys Arg Thr Thr Glu 695	600 Ala Arg Gln Leu 680 Asn	Thr Val Ile Pro 665 Glu Phe	Arg Ala His 650 Ile Arg Ser	Cys Glu 635 Lys Arg Gly Leu	Asn 620 Ser Gly Ser Gln Glu 700	Thr Asp His Met 685 Leu	Glu Tyr Ile His 670 Gly	Lys Gln Thr 655 Arg Ser	Lys His 640 Leu Ser Arg
336 337 339 340 342 343 345 346 348 349 351 352 354	Leu Asp 625 His Val Ser	Val 610 Thr Pro Pro Pro	595 Ile Arg Lys Thr Ser 675 Asn	Met Ser Arg Ile 660 Ser His	Val Tyr Pro 645 Asn Ser Val Glu	Leu Asn 630 Ser Gly Pro Pro	Phe 615 Cys Arg Thr Thr Glu 695	600 Ala Arg Gln Leu 680 Asn	Thr Val Ile Pro 665 Glu Phe	Arg Ala His 650 Ile Arg Ser	Cys Glu 635 Lys Arg Gly Leu	Asn 620 Ser Gly Ser Gln Glu 700	Thr Asp His Met 685 Leu	Glu Tyr Ile His 670 Gly	Lys Gln Thr 655 Arg Ser	Lys His 640 Leu Ser Arg
336 337 339 340 342 343 345 346 348 351 352 354 355	Leu Asp 625 His Val Ser Thr 705	Val 610 Thr Pro Pro Ser 690 Pro	595 Ile Arg Lys Thr Ser 675 Asn	Met Ser Arg Ile 660 Ser His	Val Tyr Pro 645 Asn Ser Val	Leu Asn 630 Ser Gly Pro Pro Gln 710	Phe 615 Cys Arg Thr Thr Glu 695 Val	600 Ala Arg Gln Leu 680 Asn Ser	Thr Val Ile Pro 665 Glu Phe Gln	Arg Ala His 650 Ile Arg Ser Leu	Cys Glu 635 Lys Arg Gly Leu 715	Asn 620 Ser Gly Ser Gln Glu 700 Ser	Thr Asp His Met 685 Leu Met	Glu Tyr Ile His 670 Gly Thr	Lys Gln Thr 655 Arg Ser His	Lys His 640 Leu Ser Arg Ala Gln 720
336 337 339 340 342 343 345 346 348 351 352 354 355 357	Leu Asp 625 His Val Ser Thr 705	Val 610 Thr Pro Pro Ser 690 Pro	595 Ile Arg Lys Thr Ser 675 Asn	Met Ser Arg Ile 660 Ser His	Val Tyr Pro 645 Asn Ser Val	Leu Asn 630 Ser Gly Pro Pro	Phe 615 Cys Arg Thr Thr Glu 695 Val	600 Ala Arg Gln Leu 680 Asn Ser	Thr Val Ile Pro 665 Glu Phe Gln	Arg Ala His 650 Ile Arg Ser Leu	Cys Glu 635 Lys Arg Gly Leu 715	Asn 620 Ser Gly Ser Gln Glu 700 Ser	Thr Asp His Met 685 Leu Met	Glu Tyr Ile His 670 Gly Thr	Lys Gln Thr 655 Arg Ser His	Lys His 640 Leu Ser Arg Ala Gln 720
336 337 339 340 342 343 345 346 348 351 352 354 355 357 358	Leu Asp 625 His Val Ser Thr 705 Gly	Val 610 Thr Pro Pro Ser 690 Pro Gln	595 Ile Arg Lys Thr Ser 675 Asn Ala Tyr	Met Ser Arg Ile 660 Ser His Val	Val Tyr Pro 645 Asn Ser Val Glu Pro 725	Leu Asn 630 Ser Gly Pro Pro Gln 710 Arg	Phe 615 Cys Arg Thr Thr Glu 695 Val	600 Ala Arg Gln Leu 680 Asn Ser	Thr Val Ile Pro 665 Glu Phe Gln Phe	Arg Ala His 650 Ile Arg Ser Leu Arg 730	Cys Glu 635 Lys Arg Gly Leu 715 Gly	Asn 620 Ser Gly Ser Gln Glu 700 Ser Asn	605 Arg Thr Asp His Met 685 Leu Met	Glu Tyr Ile His 670 Gly Thr Leu Tyr	Lys Gln Thr 655 Arg Ser His Fis Ser 735	Lys His 640 Leu Ser Arg Ala Gln 720 Arg
336 337 339 340 342 343 345 346 348 351 352 354 355 357 358 360	Leu Asp 625 His Val Ser Thr 705 Gly	Val 610 Thr Pro Pro Ser 690 Pro Gln	595 Ile Arg Lys Thr Ser 675 Asn Ala Tyr	Met Ser Arg Ile 660 Ser His Val Gln Tyr	Val Tyr Pro 645 Asn Ser Val Glu Pro 725	Leu Asn 630 Ser Gly Pro Pro Gln 710	Phe 615 Cys Arg Thr Thr Glu 695 Val	600 Ala Arg Gln Leu 680 Asn Ser	Thr Val Ile Pro 665 Glu Phe Gln Phe Met	Arg Ala His 650 Ile Arg Ser Leu Arg 730	Cys Glu 635 Lys Arg Gly Leu 715 Gly	Asn 620 Ser Gly Ser Gln Glu 700 Ser Asn	605 Arg Thr Asp His Met 685 Leu Met	Glu Tyr Ile His 670 Gly Thr Leu Tyr	Lys Gln Thr 655 Arg Ser His Fis Ser 735	Lys His 640 Leu Ser Arg Ala Gln 720 Arg
336 337 339 340 342 343 345 346 348 351 352 354 355 357 358 360 361	Leu Asp 625 His Val Ser Thr 705 Gly Ser	Val 610 Thr Pro Pro Ser 690 Pro Gln	595 Ile Arg Lys Thr Ser 675 Asn Ala Tyr	Met Ser Arg Ile 660 Ser His Val Gln Tyr 740	Val Tyr Pro 645 Asn Ser Val Glu Pro 725 Ala	Leu Asn 630 Ser Gly Pro Pro Gln 710 Arg Leu	Phe 615 Cys Arg Thr Thr Glu 695 Val Pro	600 Ala Arg Gln Leu 680 Asn Ser Ser	Thr Val Ile Pro 665 Glu Phe Gln Phe Met 745	Arg Ala His 650 Ile Arg Ser Leu Arg 730 Asp	Cys Glu 635 Lys Arg Gly Leu 715 Gly Lys	Asn 620 Ser Gly Ser Gln Glu 700 Ser Asn	Thr Asp His Met 685 Leu Met Lys Ser	Glu Tyr Ile His 670 Gly Thr Leu Tyr Leu 750	Lys Gln Thr 655 Arg Ser His Fis Lys	Lys His 640 Leu Ser Arg Ala Gln 720 Arg
336 337 349 342 343 345 346 348 351 352 354 355 357 358 360 361 363	Leu Asp 625 His Val Ser Thr 705 Gly Ser	Val 610 Thr Pro Pro Ser 690 Pro Gln	595 Ile Arg Lys Thr Ser 675 Asn Ala Tyr Arg	Met Ser Arg Ile 660 Ser His Val Gln Tyr 740	Val Tyr Pro 645 Asn Ser Val Glu Pro 725 Ala	Leu Asn 630 Ser Gly Pro Pro Gln 710 Arg Leu	Phe 615 Cys Arg Thr Thr Glu 695 Val Pro	600 Ala Arg Gln Leu 680 Asn Ser Ser Asp	Thr Val Ile Pro 665 Glu Phe Gln Phe Met 745	Arg Ala His 650 Ile Arg Ser Leu Arg 730 Asp	Cys Glu 635 Lys Arg Gly Leu 715 Gly Lys	Asn 620 Ser Gly Ser Gln Glu 700 Ser Asn	Thr Asp His Met 685 Leu Met Lys Ser Tyr	Glu Tyr Ile His 670 Gly Thr Leu Tyr Leu 750	Lys Gln Thr 655 Arg Ser His Fis Lys	Lys His 640 Leu Ser Arg Ala Gln 720 Arg
336 337 339 340 342 343 345 346 348 351 352 354 355 357 358 360 361 363	Leu Asp 625 His Val Ser Thr 705 Gly Ser Ser	Val 610 Thr Pro Pro Ser 690 Pro Gln Tyr	595 Ile Arg Lys Thr Ser 675 Asn Ala Tyr Arg 755	Met Ser Arg Ile 660 Ser His Val Gln Tyr 740 Gly	Val Tyr Pro 645 Asn Ser Val Glu Pro 725 Ala Asp	Leu Asn 630 Ser Gly Pro Pro Gln 710 Arg Leu Ser	Phe 615 Cys Arg Thr Thr Glu 695 Val Pro Gln	Gln Leu 680 Asn Ser Ser Asp Ala 760	Thr Val Ile Pro 665 Glu Phe Gln Phe Met 745 Gly	Arg Ala His 650 Ile Arg Ser Leu Arg 730 Asp	Glu 635 Lys Arg Gly Leu 715 Gly Lys Ser	Asn 620 Ser Gly Ser Gln Glu 700 Ser Asn Phe	Thr Asp His Met 685 Leu Met Lys Ser Tyr 765	Glu Tyr Ile His 670 Gly Thr Leu Tyr Leu 750 Asp	Lys Gln Thr 655 Arg Ser His Fis Lys Leu	Lys His 640 Leu Ser Arg Ala Gln 720 Arg Asp
336 337 339 340 342 343 345 346 351 352 354 355 357 358 360 361 363 364 366	Leu Asp 625 His Val Ser Thr 705 Gly Ser Ser	Val 610 Thr Pro Pro Ser 690 Pro Gln Tyr Gly Asp	595 Ile Arg Lys Thr Ser 675 Asn Ala Tyr Arg 755 Ser	Met Ser Arg Ile 660 Ser His Val Gln Tyr 740 Gly	Val Tyr Pro 645 Asn Ser Val Glu Pro 725 Ala Asp	Leu Asn 630 Ser Gly Pro Pro Gln 710 Arg Leu Ser	Phe 615 Cys Arg Thr Thr Glu 695 Val Pro Gln Glu	Gln Leu 680 Asn Ser Asp Ala 760 Leu	Thr Val Ile Pro 665 Glu Phe Gln Phe Met 745 Gly	Arg Ala His 650 Ile Arg Ser Leu Arg 730 Asp	Glu 635 Lys Arg Gly Leu 715 Gly Lys Ser	Asn 620 Ser Gly Ser Gln Glu 700 Ser Asn Phe Asp	Thr Asp His Met 685 Leu Met Lys Ser Tyr 765	Glu Tyr Ile His 670 Gly Thr Leu Tyr Leu 750 Asp	Lys Gln Thr 655 Arg Ser His Fis Lys Leu	Lys His 640 Leu Ser Arg Ala Gln 720 Arg
336 337 339 340 342 343 345 346 348 351 352 354 355 357 358 360 361 363	Leu Asp 625 His Val Ser Thr 705 Gly Ser Ser	Val 610 Thr Pro Pro Ser 690 Pro Gln Tyr	595 Ile Arg Lys Thr Ser 675 Asn Ala Tyr Arg 755 Ser	Met Ser Arg Ile 660 Ser His Val Gln Tyr 740 Gly	Val Tyr Pro 645 Asn Ser Val Glu Pro 725 Ala Asp	Leu Asn 630 Ser Gly Pro Pro Gln 710 Arg Leu Ser	Phe 615 Cys Arg Thr Thr Glu 695 Val Pro Gln	Gln Leu 680 Asn Ser Asp Ala 760 Leu	Thr Val Ile Pro 665 Glu Phe Gln Phe Met 745 Gly	Arg Ala His 650 Ile Arg Ser Leu Arg 730 Asp	Glu 635 Lys Arg Gly Leu 715 Gly Lys Ser	Asn 620 Ser Gly Ser Gln Glu 700 Ser Asn Phe	Thr Asp His Met 685 Leu Met Lys Ser Tyr 765	Glu Tyr Ile His 670 Gly Thr Leu Tyr Leu 750 Asp	Lys Gln Thr 655 Arg Ser His Fis Lys Leu	Lys His 640 Leu Ser Arg Ala Gln 720 Arg Asp

Input Set : A:\10147-61.app

```
369 Glu Glu Cys Arg Val Leu Gly His Ser Asp Gln Cys Trp Met Pro Pro
                                          795
                       790
370 785
372 Leu Pro Ser Pro Ser Ser Asp Tyr Arg Ser Asn Met Phe Ile Pro Gly
                                        810
                   805
375 Glu Glu Phe Pro Thr Gln Pro Gln Gln His Pro His Gln Ser Leu
                                    825
                820
378 Glu Asp Asp Ala Gln Pro Ala Asp Ser Gly Glu Lys Lys Lys Ser Phe
                                840
381 Ser Thr Phe Gly Lys Asp Ser Pro Asn Asp Glu Asp Thr Gly Asp Thr
                           855
384 Val Asp Arg Ser Asn Ser Leu Glu Arg Arg Lys Gly Pro Leu Pro Ala
                       870
                                            875
387 Glu Glu Ile Pro Glu Asn Tyr Glu Glu Asp Asp Phe Asp Asn Val Leu
                                        890
                   885
390 Leu Val Ala Glu Ile Asn Lys Leu Leu Gln Asp Val Arg Gln Ser
                                    905
                900
1579 <210> SEQ ID NO: 38
1580 <211> LENGTH: 423 295 (P.
1581 <212> TYPE: PRT
1582 <213> ORGANISM: Homo sapiens
1584 <400> SEQUENCE: 38
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1588 Arg Val Ala Glu Ser Thr Tyr Gln His His Pro Lys Arg Pro Ser Arg
1591 Gln Ile His Lys Gly Asp Ile Thr Leu Val Pro Thr Ile Asn Gly Thr
                                  40
1594 Leu Pro Ile Arg Ser His His Arg Ser Ser Pro Ser Ser Ser Pro Thr
          50
                              55
1597 Leu Glu Arg Gly Gln Met Gly Ser Arg Gln Ser His Asn Ser His Gln
                                              75
1600 Asn Phe Ser Leu Glu Leu Thr His Ala Thr Pro Ala Val Glu Val Ser
                      85
1603 Gln Leu Leu Ser Met Leu His Gln Gly Gln Tyr Gln Pro Arg Pro Ser
                                     105
                 100
1606 Phe Arg Gly Asn Lys Tyr Ser Arg Ser Tyr Arg Tyr Ala Leu Gln Asp
            115
                                 120
1609 Met Asp Lys Phe Ser Leu Lys Asp Ser Gly Arg Gly Asp Ser Glu Ala
                 140
                            135
1612 Gly Asp Ser Asp Tyr Asp Leu Gly Arg Asp Ser Pro Ile Asp Arg Leu
                     150
1613 145
                                             155
1615 Pro Ala Ala Met Arg Leu Cys Thr Glu Glu Cys Arg Val Leu Gly His
                     165
                                         170
1618 Ser Asp Gln Cys Trp Met Pro Pro Leu Pro Ser Pro Ser Ser Asp Tyr
                 180
                                     185
1621 Arg Ser Asn Met Phe Ile Pro Gly Glu Glu Phe Pro Thr Gln Pro Gln
             195
                                 200
1624 Gln Gln His Pro His Gln Ser Leu Glu Asp Asp Ala Gln Pro Ala Asp
                             215
1625
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Input Set : A:\10147-61.app

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1627 Ser Gly Glu Lys Lys Lys Ser Phe Ser Thr Phe Gly Lys Asp Ser Pro
                                                235
                 230
    1630 Ser Glu Met Ser Ser Val Phe Gln Arg Leu Leu Pro Pro Ser Leu Asp
                         245
                                            250
    1633 Thr Asn Cys Gly Pro Pro Leu Gly Thr His Ser Ser Val Gln Pro Ser
                                        265
                     260
    1636 His Glu Leu Met Asp Ala Ser Glu Leu Val Ala Glu Ile Asn Lys Leu -
                                     280
    1637 275
    1639 Leu Gln Asp Val Arg Gln Ser
             290
E--> 1640
    1762 <210> SEQ ID NO: 42
    1763 <211> LENGTH: (1183) 1/35 (ρ. 8)
    1764 <212> TYPE: PRT
    1765 <213> ORGANISM: Mus sp.
    1767 <400> SEQUENCE: 42
    1768 Met Met Leu Leu Pro Phe Leu Leu Gly Leu Leu Gly Pro Gly Ser
                 . 5
                                             10
    1771 Tyr Leu Phe Ile Ser Gly Asp Cys Gln Glu Val Ala Thr Val Met Val
                                          25
                     20
    1774 Lys Phe Gln Val Thr Glu Glu Val Pro Ser Gly Thr Val Ile Gly Lys
                                      40
                  35
    1777 Asp Ala Phe Gln Ile, Leu Gln Leu Pro Gln Ala Leu Pro Val Gln Met
                                  55
    1778 50
    1780 Asn Ser Glu Asp Gly Leu Leu Ser Thr Ser Ser Arg Leu Asp Arg Glu
                                                 75
    1783 Lys Leu Cys Arg Gln Glu Asp Pro Cys Leu Val Ser Phe Asp Val Leu
                                             90
                          85
     1786 Ala Thr Gly Ala Ser Ala Leu Ile His Val Glu Ile Gln Val Leu Asp
                                         105
                    100
     1789 Ile Asn Asp His Gln Pro Gln Phe Pro Lys Asp Glu Gln Glu Leu Glu
                                     120
                                                        125
                115
     1792 Ile Ser Glu Ser Ala Ser Leu His Thr Arg Ile Pro Leu Asp Arg Ala
                                 135
     1795 Leu Asp Gln Asp Thr Gly Pro Asn Ser Leu Tyr Ser Tyr Ser Leu Ser
                                                 155
                             150
     1798 Pro Ser Glu His Phe Ala Leu Asp Val Ile Val Gly Pro Asp Glu Thr
                         165
                                             170
     1801 Lys His Ala Glu Leu Val Val Lys Glu Leu Asp Arg Glu Leu His
                     180
                                         185
     1804 Ser Tyr Phe Asp Leu Val Leu Thr Ala Tyr Asp Asn Gly Asn Pro Pro
                                     200
     1805 195
     1807 Lys Ser Gly Ile Ser Val Val Lys Val Asn Val Leu Asp Ser Asn Asp
                                 215
              210
     1810 Asn Ser Pro Val Phe Ala Glu Ser Ser Leu Ala Leu Glu Ile Pro Glu
                                                235
                             230
     1813 Asp Thr Val Pro Gly Thr Leu Leu Ile Asn Leu Thr Ala Thr Asp Pro
                         245
                                             250
     1816 Asp Gln Gly Pro Asn Gly Glu Val Glu Phe Phe Gly Lys His Val
                                         265
```

DATE: 10/04/2001 RAW SEQUENCE LISTING TIME: 13:00:32 PATENT APPLICATION: US/09/759,130A

Input Set : A:\10147-61.app
Output Set: N:\CRF3\10042001\1759130A.raw

1819 1820	Ser	Pro	Glu 275				Thr		Gly	Ile	Asp	Ala	Lys 285	Thr	Gly	Gln
1822 1823	Ile	Ile 290	Leu	Arg	Gln	Ala	Leu 295	Asp	Tyr	Glu	Lys	Asn 300	Pro	Ala	Tyr	Glu
1825	Val		Val	Gln	Ala	Arg	Asp	Leu	Gly	Pro	Asn	Ser	Ile	Pro	Gly	His
1826	305					310					315					320
1828	Cys	Lys	Val	Leu	Ile	Lys	Val	Leu	Asp	Val	Asn	Asp	Asn	Ala	Pro	Ser
1829					325					330		_			335	
1831	Ilė	Leu	Ile		Trp	Ala	Ser	Gln		Ser	Leu	Val	Ser		Asp	Leu
1832				340				_	345		. 1 -			350		0
1834	Pro	Arg		Ser	Phe	Ile	Ala		Val	ser	ATA	Asn,		Leu	ASP	ser
1835	~1	•	355	a1	7	17 1	***	360	M~~	Tou	A a n	Cln	365	Lon	C111	uic
1837	GTĀ		ASR	GIA	Leu	Val	375		тър	Leu	MSII	380	GIU	Dea	GLY	nis
1838 1840	Dho	370	T OU	Luc	λra	Thr			λen	Thr	Tvr		Leu	Len	Thr	Asn
1841		AIG	neu	цуз	ALG	390	กรแ	Gri	11311	****	395			200		400
1843		Thr	Leu	Asp	Arσ		Gln	Trp	Pro	Ile		Thr	Leu	Thr	Val	
1844					405					410	•				415	
1846	Ala	Gln	Asp	Gln	Gly	Pro	Gln	Pro	Leu	Ser	Ala	Glu	Lys	Glu	Leu	Gln
1847				420					425					430		
1849	Ile	Gln	Val	Ser	Asp	Val	Asn	Asp	Asn	Ala	Pro	Val	Phe	Glu	Lys	Ser
1850			435		,			440					445			
1852	Arg	_	Glů	Val	Ser	Thr		Glu	Asn	Asn	Pro		Ser	Leu	His	Leu
1853		450			_		455		_	_		460	_		_	1
1855		Thr	Leu	Lys	Ala		Asp	Ala	Asp	Leu		Ser	Asn	GTĀ	гĀЗ	
1856			•	T1.	*	470	O	D	u l	Can	475	T ou	wa 1	т1 о	τla	480
1858 1859	Ser	Tyr	Arg	11e	ւչs 485	Asp	Ser	PIO	val	490	HIS	Leu	val	116	495	ASP
1861	Dha	Glu	Thr	Glv		Val	Thr	Δla	Gln	_	Ser	Len	Asp	Tvr	-	Gln
1862	riie	Giu	1111	500	Giu	Val	1111	AIU	505	9	001	Deu	ш	510	0	
1864	Met	Ala	Glv		Glu	Phe	Gln	۷a l		Ala	Glu	Asp	Arq		Gln	Pro
1865			515		0_u		•=	520		***			525	4		
1867	Gln	Leu	Ala	Ser	Ser	Ile	Ser	Val	Trp	Val	Ser	Leu	Leu	Asp	Ala	Asn
1868		530					535		_			540				
1870	Asp	Asn	Ala	Pro	Glu	Val	Ile	Gln	Pro	Val	Leu	Ser	Glu	Gly	Lys	Ala
1871						550					555					560
1873	Thr	Leu	Ser	Val	Leu	Val	Asn	Ala	Ser		Gly	His	Leu	Leu		Pro
1874					565			*		570		_	_		575	_
1876	Ile	Glu	Asn				Met	Asp				Thr	Gly			Pro
1877	•	_		580	- 7	_	_	_				_		590		
	-	Ala			٠.,		Trp			Leu	Leu	Leu			vaı	Ala
1880			595				. 1 -	600		G1	T 0	Dho	605		Tlo	Cln
1882	Arg	_		ASP	ser	GTA			СТА	GIU	Leu	620		ser	ire	GIII
1883 1885	Com	610))	λla	Uic	615		Dho	Lou	Cor			T.011	Glv	Gln
1886		GTÅ	ASII	usb	wra	630		FIIG	riie	nea	635		Set	มอน	GLY	640
		Pho	Tle	Acn	Va 1			Ala	Ser	Ser			Glv	Ser	Gln	Trp
1889		LIIC	110		645				561	650			1		655	
		Len	Glv	Ile			Glu	Asp	Gln			Pro	Ser	Leu		Thr
_0,1	Р	<u> </u>	~_1							1		•				

Input Set : A:\10147-61.app
Output Set: N:\CRF3\10042001\1759130A.raw

1892				660					665					670		
1894	Gln	Val	Ser	Leu	Lys	Val	Val	Phe	Val	Thr	Ser	Val	Asp	His	Leu	Arg
1895		•	675					680					685			
1897	Asp	Ser	Ala	His	Glu	Pro	Gly	Val	Leu	Ser	Thr	Pro	Ala	Leu	Ala	Leu
1898		690					695		,			700				
1900	Ile	Cys	Leu	Ala	Val	Leu	Leu	Ala	Ile	Phe	Gly	Leu	Leu	Leu	Ala	Leu
1901		•		• • •		710					715					720-
1903		Val	Ser	Ile	Cvs	Arg	Thr	Glu	Arq	Lys	Asp	Asn	Arg	Ala	Tyr	Asn
1904					725				•	730	•		•		735	
1906		Ara	Glu	Δla		Ser	Ser	Tvr	Ara	His	Gln	Pro	Lvs	Arg	Pro	Gln
1907	015	9	O_u	740	024	002		- 1	745				•	750		
1909	Tvc	uic	Tla		Lvc	Δla	Aen	Tle		T.eu	Va 1	Pro	Va1		Ara	Ala
1910	цуз	птэ	755	GIII	цуз	AIU	vəħ	760		Deu	,,,		765	200	*** 9	
1910	TT 4 ~	C1		~1	mh m	N an	C1		A ra	Dro	Sor	Uic		Nen	Thr	Sor
	HIS		ASII	GIU	THE	ASP			ALY	PIO	Ser	780	шуз	пор	1111	261
1913		770	m 1			01	775		m	N an	Con		T 011	C1	A 7 n	Dro
1915	-	GIU	Thr	Leu	мет		Ala	GTÅ	ттр	ASP		Cys	Leu	GIU	нта	
1916						790	_	_	_	-1	795	•	•	a1	a 1	800
1918	Phe	His	Leu	Thr		Thr	Leu	Tyr	Arg		Leu	Arg	ASN	GIn		ASN
1919					805				_	810					815	
1921	Gln	Gly	Glu.	Leu	Ala	Glu	Ser	Gln		Val	Leu	Gln	Asp		Phe	Asn
1922				820					825				٠.	830		
1924	Phe	Leu	Phe	Asn	His,	Pro	Arg	Gln	Arg	Asn	Ala	Ser	Arg	Glu	Asn	Leu
1925			835					840					845			
1927	Asn	Leu	Pro	Glu	Ser	Pro	Pro	Ala	Val	Arg	Gln	Pro	Leu	Leu	Arg	Pro
1928		850					855					860				
1930	Leu	Lys	Val	Pro	Gly	Ser	Pro	Ile	Ala	Arg	Ala	Thr	Gly	Asp	Gln	Asp
1931	865	-			_	870					875					880
1933	Lvs	Glu	Glu	Ala	Pro	Gln	Ser	Pro	Pro	Ala	Ser	Ser	Ala	Thr	Leu	Arg .
1934	•				885					890			•		895	
1936	Ara	Gln	Ara	Asn	Phe	Asn	Glv	Lvs	Val	Ser	Pro	Arg	Gly	Glu	Ser	Gly
1937		•=	5	900			2	-1-	905			,	•	910		-
1939	Pro	Hic	Gln		Leu	Ara	Ser	Leu		Arσ	Leu	Ser	Val		Ala	Phe
1940	110		915		Lou	••••	001	920		5			925	••		
1942	λla	Glu		λen	Pro	Val	Glu		Pro	Δla	Glv	Asn		Pro	Pro	Val
1943	AIU	930	nrg	nou	110	141	935	Gru	110	u	017	940	001			
1945	Cln		τ1.0	Cor	Clin	Lon		cor	T OIL	Lou	Uic		G1v	Gln	Dhe	Gln
		GIII	TIE	261	GIII	950	Бец	261	nen	пса	955	GIII	OLI	0111	1110	960
1946		*	D		II i a		C1.,	200	T	П		x 1 -	Tvc	Dro	Cly	
1948	PLO	Lys	Pro	ASII		Arg	GTA	ASII	гуя	970		MIG	гåз	PIO	975	GLY
1949	a	~	•	61	965	-1 -			m L			T	1101	c1		T
1951	Ser	Ser	Arg			He	Pro	Asp			GIY	Leu	Val		Leu	гаг
1952				980		_			985			- .		990	_	_
1954	Pro	Ser	Gly	Gln	Ala	Glu				Glu	Glu				Ser	Pro
1955			995					1000					1005			
1957	Leu	Ser	Ser	Leu	Leu				Thr	Gly				Asp	Lys	Leu
1958		1010					1015					1020				
1960	Ser	Pro	Pro	Asp	Pro	Ala	Trp	Met	Ala	Arg	Leu	Ser	Leu	Pro	Leu	Thr
1961						1030					1035					1040
1963	Ser	Glu	Glu	Pro	Arg	Thr	Phe	Gln	Thr	Phe	Gly	Lys	Thr	Val	Gly	Pro
1964					1045					1050					1055	

Input Set : A:\10147-61.app

Output Set: N:\CRF3\10042001\1759130A.raw

1966 Gly Pro Glu Leu Ser Pro Thr Gly Thr Arg Leu Ala Ser Thr Phe Val 1967 1060 1065 1070 1969 Ser Glu Met Ser Ser Leu Leu Glu Met Leu Gly Gln His Thr Val 1970 1075 1080 1085 1972 Pro Val Glu Ala Ala Ser Ala Ala Leu Arg Arg Leu Ser Val Cys Gly 1095 1100 1975 Arg Thr Leu Ser Leu Asp Leu Ala Thr Ser Gly Ala Ser Ala Ser Glu 1976 1105 1110 1115 1978 Ala Gln Gly Arg Lys Lys Ala Ala Glu Ser Arg Leu Gly Cys Gly 1135 E--> 1979 1125 1130

Use of mand/or Xia has been detected in the Sequence Listing. Review the Sequence Listing to insure a corresponding explanation is presented in the <220> to <223> fields of each sequence using n or Xia.

VERIFICATION SUMMARY
PATENT APPLICATION: US/09/759,130A
DATE: 10/04/2001
TIME: 13:00:35

Input Set : A:\10147-61.app

```
L:20 M:270 C: Current Application Number differs, Replaced Current Application Number
L:21 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:391 M:252 E: No. of Seq. differs, <211>LENGTH:Input:1151 Found:911 SEQ:3
L:859 M:283 W: Missing Blank Line separator, <400> field identifier
L:860 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (9) SEQUENCE:
L:864 M:283 W: Missing Blank Line separator, <400> field identifier
L:865 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (10) SEQUENCE:
L:869 M:283 W: Missing Blank Line separator, <400> field identifier
L:870 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (11) SEQUENCE:
L:874 M:283 W: Missing Blank Line separator, <400> field identifier
L:875 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (12) SEQUENCE:
L:879 M:283 W: Missing Blank Line separator, <400> field identifier
L:880 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (13) SEQUENCE:
L:884 M:283 W: Missing Blank Line separator, <400> field identifier
L:885 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (14) SEQUENCE:
L:889 M:283 W: Missing Blank Line separator, <400> field identifier
L:890 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (15) SEQUENCE:
L:894 M:283 W: Missing Blank Line separator, <400> field identifier
L:895 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (16) SEQUENCE:
L:899 M:283 W: Missing Blank Line separator, <400> field identifier
L:900 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (17) SEQUENCE:
L:904 M:283 W: Missing Blank Line separator, <400> field identifier
L:905 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (18) SEQUENCE:
L:909 M:283 W: Missing Blank Line separator, <400> field identifier
L:910 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (19) SEQUENCE:
L:914 M:283 W: Missing Blank Line separator, <400> field identifier
L:915 M:300 W: (50) Intentionally skipped Sequence, :/ Sequence Id (20) SEQUENCE:
L:919 M:283 W: Missing Blank Line separator, <400> field identifier
L:920 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (21) SEQUENCE:
L:924 M:283 W: Missing Blank Line separator, <400> field identifier
L:925 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (22) SEQUENCE:
L:929 M:283 W: Missing Blank Line separator, <400> field identifier
L:930 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (23) SEQUENCE:
L:934 M:283 W: Missing Blank Line separator, <400> field identifier
L:935 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (24) SEQUENCE:
L:939 M:283 W: Missing Blank Line separator, <400> field identifier
L:940 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (25) SEQUENCE:
L:944 M:283 W: Missing Blank Line separator, <400> field identifier
L:945 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (26) SEQUENCE:
L:949 M:283 W: Missing Blank Line separator, <400> field identifier
L:950 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (27) SEQUENCE:
L:954 M:283 W: Missing Blank Line separator, <400> field identifier
L:955 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (28) SEQUENCE:
L:959 M:283 W: Missing Blank Line separator, <400> field identifier
L:960 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (29) SEQUENCE:
L:964 M:283 W: Missing Blank Line separator, <400> field identifier
L:965 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (30) SEQUENCE:
L:1348 M:283 W: Missing Blank Line separator, <400> field identifier
```

VERIFICATION SUMMARY DATE: 10/04/2001 PATENT APPLICATION: US/09/759,130A TIME: 13:00:35

Input Set : A:\10147-61.app

```
L:1349 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (34) SEQUENCE:
L:1570 M:283 W: Missing Blank Line separator, <400> field identifier
6:1571 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (36) SEQUENCE:
L:1575 M:283 W: Missing Blank Line separator, <400> field identifier
6:1576 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (37) SEQUENCE:
L:1640 M:252 E: No. of Seq. differs, <211>LENGTH:Input:423 Found:295 SEQ:38
L:1644 M:283 W: Missing Blank Line separator, <400> field identifier
L:1645 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (39) SEQUENCE:
L:1979 M:252 E: No. of Seq. differs, <211>LENGTH:Input:1183 Found:1135 SEQ:42
L:1983 M:283 W: Missing Blank Line separator, <400> field identifier
L:1984 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (43) SEQUENCE:
L:1988 M:283 W: Missing Blank Line separator, <400> field identifier
L:1989 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (44) SEQUENCE:
L:1993 M:283 W: Missing Blank Line separator, <400> field identifier
L:1994 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (45) SEQUENCE:
L:1998 M:283 W: Missing Blank Line separator, <400> field identifier
L:1999 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (46) SEQUENCE:
L:2003 M:283 W: Missing Blank Line separator, <400> field identifier
L:2004 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (47) SEQUENCE:
L:2008 M:283 W: Missing Blank Line separator, <400> field identifier
L:2009 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (48) SEQUENCE:
L:2013 M:283 W: Missing Blank, Line separator, <400> field identifier
L:2014 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (49) SEQUENCE:
L:2018 M:283 W: Missing Blank Line separator, <400> field identifier
L:2019 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (50) SEQUENCE:
L:2428 M:283 W: Missing Blank Line separator, <400> field identifier
L:2429 M:300 W: (50) Intentionally skipped Sequence, & Sequence Id (62) SEQUENCE:
L:2433 M:283 W: Missing Blank Line separator, <400> field identifier
L:2434 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (63) SEQUENCE:
L:2438 M:283 W: Missing Blank Line separator, <400> field identifier
L:2439 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (64) SEQUENCE:
L:2443 M:283 W: Missing Blank Line separator, <400> field identifier
L:2444 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (65) SEQUENCE:
L:2448 M:283 W: Missing Blank Line separator, <400> field identifier
L:2449 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (66) SEQUENCE:
L:2453 M:283 W: Missing Blank Line separator, <400> field identifier
L:2454 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (67) SEQUENCE:
L:2458 M:283 W: Missing Blank Line separator, <400> field identifier
L:2459 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (68) SEQUENCE:
L:2463 M:283 W: Missing Blank Line separator, <400> field identifier
L:2464 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (69) SEQUENCE:
L:2468 M:283 W: Missing Blank; Line separator, <400> field identifier
L:2469 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (70) SEQUENCE:
L:3032 M:283 W: Missing Blank Line separator, <400> field identifier
L:3033 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (79) SEQUENCE:
L:3037 M:283 W: Missing Blank Line separator, <400> field identifier
L:3038 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (80) SEQUENCE:
L:3113 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:81
L:3113 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:81
```

VERIFICATION SUMMARY DATE: 10/04/2001 PATENT APPLICATION: US/09/759,130A TIME: 13:00:35

Input Set : A:\10147-61.app
Output Set: N:\CRF3\10042001\1759130A.raw

L:3114 M:258 W: Mandatory Feature missing, <223> not found for SEQ.ID#:81 L:3114 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:81 L:3283 M:283 W: Missing Blank Line separator, <400> field identifier L:3284 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (87) SEQUENCE: L:3331 M:283 W: Missing Blank Line separator, <400> field identifier L:3332 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (89) SEQUENCE: L:3336 M:283 W: Missing Blank Line separator, <400> field identifier L:3337 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (90) SEQUENCE: L:3411 M:258:W: Mandatory Feature missing, <223> not found for SEQ ID#:91 L:3411 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:91 L:3412 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:91 L:3412 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:91 L:3604 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:96 L:3604 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:96 L:3605 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:96 L:3605 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:96 L:3790 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:101 L:3790 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:101 L:3791 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:101 L:3791 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:101L:3972 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:106 L:3972 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:106 L:3973 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:106 L:3973 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:106 L:4150 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:111 L:4150 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:111 L:4151 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:111 L:4151 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:111 L:4253 M:283 W: Missing Blank Line separator, <400> field identifier L:4254 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (116) SEQUENCE: L:4258 M:283 W: Missing Blank Line separator, <400> field identifier L:4259 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (117) SEQUENCE: L:9840 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:324 L:9840 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:324 L:11213 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:343 L:11213 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:343 L:16904 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:450 $L:16904\ M:258\ W:$ Mandatory Feature missing, <222> not found for SEQ ID#:450 L:16904 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:450 L:16951 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:451 L:16951 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:451 L:16951 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:451 L:16983 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:452 L:16983 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:452 L:16983 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:452 L:17009 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:453 L:17009 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:453 L:17009 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:453 L:17036 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:454

VERIFICATION SUMMARY DATE: 10/04/2001 PATENT APPLICATION: US/09/759,130A TIME: 13:00:35

Input Set: A:\10147-61.app
Output Set: N:\CRF3\10042001\1759130A.raw

L:17036 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:454 L:17036 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:454 L:17039 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:454 L:17039 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:454 L:17039 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:454 L:17042 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:454 L:17042 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:454= -L:17042 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:454 L:17062 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:455 L:17062 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:455 L:17062 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:455 L:17083 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:456 L:17083 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:456 L:17083 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:456 L:17086 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:456 L:17086 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:456 L:17086 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:456 L:17089 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:456 $L:17089\ M:258\ W:$ Mandatory Feature missing, <222> not found for SEQ ID#:456 L:17089 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:456L:17124 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:457 L:17124 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:457 L:17124 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:457 L:17127 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:457 L:17127 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:457 L:17127 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:457